Kirkby-in-Ashfield
URBAN DISTRICT COUNCIL.

Annual Report

For 1908,

BY

JOHN MACKENZIE,

Medical Officer of Health.

East Kirkby:
Printed by A. Moore, at the Phœnix Works, Cemetery Road.

Kirkby-in-Ashfield Urban District Council.

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REPORT.

To the Chairman and Members of the Kirkby-in-Ashfield Urban District Council.

GENTLEMEN,

I beg to submit my Annual Report on the health and sanitary circumstances of your District.

The divisions or Wards of the Urban District, its geological formation and physical features have been repeatedly described to you in former Reports.

This year the annual review of our sanitary condition is for the sake of simplicity divided into three parts.

Part I.

Part I is mostly taken up with tables and figures showing the annual increase of the population, the total number of births, and birth-rate, the total number of deaths, and death-rate.

We have read of "sermons in stones" but the homilies of Vital Statistics skilfully arranged are not less eloquent and searching in exposing our many hygienic sins.

Value of Statistics

These figures taken over a series of years and applied to particular localities of known population will show the relation of sickness and death to sanitary improvements, social habits, atmospheric changes—sunshine and rain—subsoil and drainage, house accommodation and industrial pursuits. Hence it is that Tables are provided showing

Use of Tables

(a) increase of population and house accommodation in each Ward since 1901,

(b) Tables showing births—males and females—occurring quarterly in Wards and the birth-rate for every year since 1896,

(c) Tables showing deaths at all ages — males and females— occurring quarterly in Wards, and the general death-rate.

Part II.

Part II deals with Infantile Mortality, Epidemics, Zymotic Diseases, Phthisis, Diseases of the Respiratory Organs, etc., etc.

The Tables in this part of the Report are designed to show

(a) Infantile Mortality as being more prevalent at certain seasons of the year than others, for instance, Diarrhœa being mainly responsible during the hot summer weather, Pneumonia and

Influenza in cold, changeable weather. From the same Tables we learn the high infantile mortality among the illegitimates and the very marked difference in the Ward infant death-rate. Use of Tables

(b) Another set of Tables show the prevalence of Zymotic or Infectious Disease extended over a period of years, the seasonal incidence, the local or Ward incidence. For instance, Table V. shows the infectious diseases occurring in each month; Table VI. shows the same as they occur in Wards; then again Table VII. shows the deaths from the same class of diseases occurring in each month, and Table VIII. the deaths in each Ward.

This arrangement of statistics will enable us to ascertain the relation of infectious diseases Relationship of statistics to infectious disease, climate, and locality.

(1) to climatic conditions,

(2) to particular localities, viz., Wards.

We further learn that Zymotic Diseases have a higher mortality during unfavourable meteorological conditions and the prevalence of epidemics. When we examine the matter more closely we find that the habits of the people, the structure of the houses, and the nature of the soil, favour the spread of infection and intensify the nature of infectious poisons. We thus get the seasonal variation and the Ward variation of the death curve.

Then again, winter with its fogs and rain and rapid changes in the barometer fills our Tables with the wreckage of the very young, aged, and feeble, who succumb to diseases of the respiratory organs, hence the necessity for warmth and protection from our insidious climate.

In like manner our summers, with at times their

Summer heat and diarrhœa.

almost tropical heat, load our Tables of Infantile Mortality with deaths from diseases of the digestive organs, so pointing out to us a lesson often overlooked, the extreme care needed in feeding young infants in summer and autumn.

Certain facts worth recording are shown by these Tables in relation to the vital statistics of the different Wards. Beginning with 1901, the census year, when for the first time the Ward population was ascertained, and including every year down to 1908, we find the average birth-rate, death-rate, and infant death-rate for each Ward is as follows :—

Average birth-rate, death-rate, and infant death-rate in Wards since 1901.

	Birth-rate	Death-rate	Infant death-rate
East Ward ...	37·6	11·4	130·6
West Ward ...	36·1	13·6	157·7
South Ward ...	35·1	12·9	145·4

Per centage increase of population and house accommodation since 1901.

These are most valuable facts and alone repay all the trouble of compiling every year Tables for each Ward. We see that the East Ward with its high average birth-rate shows by far the lowest infantile death-rate, and an average death-rate at all ages of 11·4. Again during the same period the population of the East Ward has increased from 3,872 to 7,318—88·9 per cent, and house accommodation has increased 86·3 per cent.

The West Ward has increased its population by 53·2 per cent., and its house accommodation by 48·8 per cent.

The South Ward during the period under consideration has increased its population by 30·1 per cent., and house accommodation by 21·6 per cent.

There must be some explanation of the East Ward with its rapid growth and high birth-rate maintaining an average death-rate of 11·4, and an average infantile death-rate of 130·6 over a period of eight years, which figures compare favourably with many a proud suburb of our cities and towns. What then are the ameliorating causes at work in this sub-district of your sanitary area with its rapid growth and close street formation? Is the situation more favourable — a southern aspect with a sandy and porous subsoil, more sunshine and less rain? No; the aspect is due west, the subsoil heavy clay while the rain descends and the sun shines on every Ward alike. Is it a residential district with its villas and well to do people redeemed from the grinding care of intense industrial toil, a people of leisure and intelligence able to look after their own health and that of their offspring? No, the inhabitants of the East Ward are exactly the same as the West and South Wards, but sanitary improvements are much more advanced in the East Ward. Scavenging was first done here by the Council, more pails and privy closets have been converted into water closets, all the private streets have been completed in this Ward and taken over by the Sanitary Authority. So also are public sewers and surface water drainage much better than is the case in the other Wards. In the matter of house accommodation there are fewer houses in the East Ward than in the West and South Wards, with low rents and only two or three rooms, where the out-of-work and casual labourer live.

East Ward lowest average.

Explanation offered more sanitary improvement in the East Ward.

Part III deals with general administrative work: the progress for the year under review must be faithfully recorded, so also failure to carry out Sanitary improvements recommended in other Reports. The work of the Sanitary Inspector and the steps taken to remedy existing

Part III.

Administrative work, etc.

nuisances. Milk supply, water supply, sewerage, bye-laws "Public Health Acts," Amendment Act, the administration of the Factory and Workshops Act, 1901, sec. 132, etc.

PART I.

Vital statistics for 1908.

The estimated population up to the middle of 1908 is 16442, an annual increase of 390. Although there are several ways of calculating the yearly increase of the population, the simple method adopted here is that of allowing five persons to each new house assessed from midsummer to midsummer. The results thus arrived at approximate more closely the natural increase, i.e., the difference between the births and deaths during the same period.

Ward increase

East Ward	West Ward	South Ward
225	100	65

Births.

Five hundred and forty-three births were registered, males 270, females 273, of which 17 were illegitimate. The general birth-rate is 33·0 and the Ward birth-rate:—

Ward birth-rate.

East Ward	West Ward	South Ward
30·8	36·8	32·3

Deaths at all ages—rate 11·8

One hundred and ninety-four deaths were registered, an annual death-rate of 11·8, and a Ward death-rate of :—

Ward death-rate.

East Ward	West Ward	South Ward
10·3	14·8	11·9

Infantile deaths—rate 139·9.

Seventy-six infants died under one year of age, giving an infantile death-rate of 139·9, and a Ward death-rate of :—

East Ward	West Ward	South Ward
132·7	150·8	137·7

The marked difference in the Ward Infantile Death-rate will be considered further on when dealing with the causes and remedies of Infantile mortality.

A Table will be found in the Appendix to the Report giving the Ward birth-rate and death-rate at all ages, and

infant death-rate since 1896.

Births and birth-rate 33·0.

Five hundred and forty-three births were registered during the year, equivalent to an annual birth-rate of 33·0 per 1000 of the population, occurring quarterly as follows:

			Illegitimates	
	Males	Females	Males	Females
1st Quarter	47	63	—	4
2nd Quarter	76	63	3	2
3rd Quarter	77	68	1	—
4th Quarter	64	68	2	5
Totals 1908	264	262	6	11
„ 1907	249	267	12	7
„ 1906	250	247	10	6
„ 1905	259	236		
„ 1904	281	240		
„ 1903	244	251		
„ 1902	239	227		
„ 1901	214	215		
„ 1900	202	199		
„ 1899	219	193		
„ 1898	199	155		
„ 1897	190	208		

TABLE I.

Showing increase in population and house property since census 1901 :—

Years.	East Ward	West Ward	South Ward	Totals	Annual increase	
					Houses	Population
1901—						
Inhabited houses	756	625	674	2055		
Population ...	3872	3173	3273	10318		
1902—						
Inhabited houses	906	686	707	2299	244	
Population ...	4548	3444	3549	11541		1223
1903—						
Inhabited houses	1065	741	726	2532	233	
Population ...	5325	3705	3630	12660		1119
1904—						
Inhabited houses	1193	804	754	2751	219	
Population ...	5965	4020	3770	13755		1095
1905—						
Inhabited houses	1267	852	774	2893	142	
Population ...	6335	4260	3870	14465		710
1906—						
Inhabited houses	1313	901	800	3014	121	
Population ...	6828	4685	4160	15673		665
1907—						
Inhabited houses	1364	916	807	3087	73	
Population ...	7093	4763	4196	16052		379
1908—						
Inhabited houses	1409	930	820	3165	78	
Population ...	7318	4863	4261	16442		390

TABLE II.

Showing births in Wards :—

Births occurring quarterly in Wards.

	East Ward	West Ward	South Ward
1st Quarter ...	48	37	29
2nd Quarter ...	57	47	40
3rd Quarter ...	62	52	32
4th Quarter ...	59	43	37
Totals 1908 ...	226	179	138
Totals 1907 ...	236	165	134
Totals 1906 ...	237	158	118
Totals 1905 ...	211	161	123
Totals 1904 ...	238	122	161
Totals 1903 ...	212	146	137
Totals 1902 ...	204	129	133
Totals 1901 ...	169	125	135
Totals 1900 ...	181	107	113
Totals 1899 ...	180	108	124
Totals 1898 ...	156	91	106
Totals 1897 ...	178	79	141

Birth-rate for the last 13 years :—

Comparative birth-rate corrected according to census 1901.

1896	...	39·5 per 1000 of the population	
1897	...	44·7	,, ,,
1898	...	38·1	,, ,,
1899	...	42·6	,, ,,
1900	...	39·9	,, ,,
1901	...	41·2	,, ,,
1902	...	40·4	,, ,,
1903	...	39·1	,, ,,
1904	...	37·8	,, ,,
1905	...	34·2	,, ,,
1906	...	32·7	,, ,,
1907	...	33·3	,, ,,
1908	...	33·0	,, ,,

One hundred and ninety-four deaths at all ages were registered in the Urban District, equivalent to an annual mortality of 11·8 per 1000 of the population, occurring quarterly as follows :—

Deaths at all ages.

	Males	Females
1st Quarter ...	23	27
2nd ,, ...	21	22
3rd ,, ...	24	29
4th ,, ...	24	24
Totals for 1908 ...	92	102
Totals for 1907 ...	83	30
Totals for 1906 ...	85	93
Totals for 1905 ...	86	76
Totals for 1904 ...	104	74
Totals for 1903 ...	69	85
Totals for 1902 ...	90	86

TABLE III.

Showing deaths in Wards :—

Deaths at all ages occurring quarterly in Wards.

	East Ward	West Ward	South Ward
1st Quarter ...	16	18	16
2nd Quarter ...	18	17	8
3rd Quarter ...	19	15	19
4th Quarter ...	19	18	11
Totals 1908 ...	72	68	54
Totals 1907 ...	81	41	41
Totals 1906 ...	63	63	52
Totals 1905 ...	64	50	48
Totals 1904 ...	69	47	59
Totals 1903 ...	57	52	45
Totals 1902 ...	65	61	50
Totals 1901 ...	61	55	50
Totals 1900 ...	88	66	36
Totals 1899 ...	58	56	45
Totals 1898 ...	56	35	49
Totals 1897 ...	58	24	47

Death-rate for the last thirteen years :—

1896	...	18·5 per 1000 of the population		Corrected death-rate according to census 1901.
1897	...	14·7	,,	,,
1898	...	15·0	,,	,,
1899	...	16.4	,,	,,
1900	...	18·9	,,	,,
1901	...	15.9	,,	,,
1902	...	15·2	,,	,,
1903	...	12·1	,,	,,
1904	...	12·6	,,	,,
1905	...	11·1	,,	,,
1906	...	11·9	,,	,,
1907	...	10·1	,,	,,
1908	...	11·8	,,	,,

PART II.

Infantile mortality rate 139·9.

Seventy-six deaths were registered under one year of age, equivalent to an annual infantile mortality of 139·9 per 1000 births, 39·17 per 1000 total deaths, and 4·6 per 1000 of the population, occurring quarterly as follows :—

			Illegitimates	
	Males	Females	Males	Females
1st Quarter ...	8	8	2	2
2nd Quarter...	5	8		
3rd Quarter ...	10	11		2
4th Quarter...	10	9		1
Totals 1908...	33	36	2	5
Totals 1907...	32	25	2	1
Totals 1906...	31	33	3	4
Totals 1905...	35	28		
Totals 1904...	54	32		

TABLE IV.

Showing deaths under 1 year occurring Quarterly in Wards :—

	East Ward	West Ward	South Ward
1st Quarter ...	8	7	5
2nd Quarter ...	6	5	2
3rd Quarter ...	11	5	7
4th Quarter ...	5	10	5
Totals 1908 ...	30	27	19
Totals 1907 ...	30	17	13
Totals 1906 ...	26	28	17
Totals 1905 ...	24	21	18
Totals 1904 ...	39	22	25
Totals 1903 ...	24	12	19
Totals 1902 ...	28	28	25
Totals 1901 ...	25	25	22
Totals 1900 ..	44	23	15
Totals 1899 ...	23	21	14
Totals 1898 ...	29	8	17
Totals 1897 ...	21	7	28
Totals 1896 ...	35	12	16

Ward infantile mortality.

Infant death-rate for the last thirteen years :—

Infant death-rate for the last 13 years.

1896	...	185·9	per 1000 births
1897	...	140·7	,,
1898	...	152·5	,,
1899	...	140·7	,,
1900	...	204·4	,,
1901	...	167·8	,,
1902	...	173·8	,,
1903	...	111·1	,,
1904	...	165·0	,,
1905	...	127·2	,,
1906	...	138·4	,,
1907	...	112·1	,,
1908	...	139·9	,,

TABLE V.

Notifiable Zymotic Diseases occuring in each month :—

Notifiable zymotic diseases occurring in each month.

	Scarlet fever	Diphtheria	Typhoid fever	Puerperal fever	Erysipelas	Small-pox	Membranous Croup	Chicken-pox	Typhus fever	Cerebro spinal fever
January ...	10	...	...	...	4	...	...	...	...	...
February ...	2	...	1	2	1	...	...	...	...	...
March ...	3	1	...	...	...	...	...	...	...	...
April ...	5	...	...	...	3	...	...	...	...	...
May ...	1	...	2	...	2	...	...	...	...	...
June ...	1	...	2	...	...	...	...	...	...	...
July ...	8	...	...	...	2	...	...	...	...	...
August ...	4	...	1	...	1	...	...	...	...	...
September ...	1	...	6	...	2	...	...	...	...	...
October ...	1	...	...	...	2	...	...	...	...	...
November ...	4	...	1	...	4	...	...	...	...	...
December ...	...	...	2	...	2	...	...	...	...	...
Totals 1908...	40	1	15	2	23	...	...	...	...	...
Totals 1907...	68	8	10	1	28	...	...	...	...	1
Totals 1906...	120	13	27	2	23	...	...	...	...	...
Totals 1905...	98	8	38	2	20	...	...	...	...	...
Totals 1904...	79	6	18	3	12	3	1	38	...	...
Totals 1903...	41	4	26	1	17	5	...	...	...	...
Totals 1902...	17	...	16	3	4	...	...	...	...	...
Totals 1901...	11	2	19	2	8	1	...	...	...	...
Totals 1900...	23	9	18	...	15	...	...	...	...	...
Totals 1899...	163	19	22	5	13	...	1	...	...	...
Totals 1898...	65	5	23	...	14	...	1	...	1	...
Totals 1897...	27	2	37	...	11	...	6	...	...	...
Totals 1896...	12	7	12	2	3	...	...	...	...	...

TABLE VI.

Showing Notifiable Zymotic Diseases occuring in each Ward :—

Notifiable zymotic diseases occurring in Wards.

	East Ward	West Ward	South Ward
Diphtheria ...	...	...	1
Erysipelas ...	5	4	14
Scarlet fever ...	17	18	5
Typhoid fever ...	9	6	...
Puerperal fever ...	...	2	...
Totals 1908 ...	31	30	20
Totals 1907 ...	68	24	24
Totals 1906 ...	60	90	35
Totals 1905 ...	44	72	45
Totals 1904 ...	42	30	88
Totals 1903 ...	43	36	25
Totals 1902 ...	15	15	12
Totals 1901 ...	16	25	2
Totals 1900 ...	19	24	22
Totals 1899 ...	88	101	34
Totals 1898 ...	58	23	27
Totals 1897 ...	39	21	24

TABLE VII.

Showing deaths from Zymotic Diseases occurring in each month :—

Deaths from zymotic diseases occurring in each month.

	Scarlet fever	Diphtheria	Typhoid fever	Typhus fever	Zym. Enteritis	Puerperal fever	Whoop. Cough	Erysipelas	Measles	Influenza	Cere. spin'l fever
January ...	...		...	...	...	...	...	...	...	1	...
February ...	...	...	...	...	...	1	3	...	...	...	...
March ...	...	...	...	...	...	...	2	...	...	1	...
April ...	1	...	...	...	...	...	...	...	...	3	...
May ...	...	...	...	...	...	...	2	...	...	1	...
June ...	...	...	...	...	...	...	...	...	...	...	...
July ...	...	...	...	...	1	...	...	...	...	...	...
August ...	...	...	...	...	7	...	...	...	...	...	...
September ...	...	...	...	...	3	...	...	...	...	...	...
October ...	...	...	...	...	5	...	1	...	...	1	...
November ...	...	...	...	...	...	...	...	...	...	1	...
December ...	...	...	...	...	...	...	...	...	...	...	...
Totals 1908...	1	...	...	...	16	1	8	...	...	8	...
Totals 1907...	1	4	...	...	3	...	3	...	10	...	1
Totals 1906...	...	1	1	...	10	...	6	...	...	2	...
Totals 1905...	...	...	...	...	8	...	7	...	16	3	...
Totals 1904...	...	3	3	...	13	2	3	...	1	...	...
Totals 1903...	1	1	6	...	4	...	...	2	...	...	...
Totals 1902...	...	...	2	...	1	2	6	...	13	...	...
Totals 1901...	...	1	1	...	10	2	3	2	6	...	...
Totals 1900...	2	1	...	...	10	1	3	...	...	...	...
Totals 1899...	5	3	4	...	12	2	1	...	6	...	...
Totals 1898...	3	...	3	...	15	...	4	1	4	...	...
Totals 1897...	1	1	4	1	6	...	5	...	...	...	...
Totals 1896...	...	2	4	...	7	...	5	...	5	...	...

TABLE VIII.

Showing deaths from Zymotic Diseases occurring in each Ward :—

Deaths from zymotic diseases in Wards.

	East Ward	West Ward	South Ward
Diphtheria ...	...	...	...
Zymotic Enteritis	9	6	1
Whooping Cough	2	1	5
Typhoid Fever ...	...	...	...
Measles ...	...	...	...
Scarlet Fever ...	1	...	...
Cerebro-Spinal Fever ...	...	...	...
Influenza ...	3	3	2
Puerperal Fever ...	...	1	...
Totals 1908...	15	11	8
Totals 1907...	13	4	5
Totals 1906...	9	10	1
Totals 1905...	13	12	9
Totals 1904...	13	4	8
Totals 1903...	11	0	3
Totals 1902...	9	13	2
Totals 1901...	10	9	5
Totals 1900...	9	3	5
Totals 1899..	10	15	8
Totals 1898...	13	4	13
Totals 1897...	7	4	7

Zymotic death-rate for the last thirteen years :—

1896	...	4·1 per 1000 of the population	
1897	...	1·3	,, ,,
1898	...	1·6	,, ,,
1899	...	2.1	,, ,,
1900	...	0·6	,, ,,
1901	...	1·3	,, ,,
1902	...	1·9	,, ,,
1903	...	0·7	,, ,,
1904	...	0·8	,, ,,
1905	...	1·7	,, ,,
1906	...	0·6	,, ,,
1907	...	1·1	,, ,,
1908	...	2·0	,, ,,

Zymotic death-rate for the last 13 years.

Infantile Mortality.

This year there were 76 deaths registered under one year of age, giving an annual death-rate of 139·9 per 1000 births.

Infantile mortality 139·9 per 1000 births.

The causes of infantile mortality are extremely complex and require a good deal of analysis so that the reader may clearly understand it. First then we must separate the legitimates from the illegitimates which fact will help us to realize the exceedingly close relation between home life and infant death and all that that means for the infant. There were 543 births in the district, of these 526 were legitimates, 69 of them died, giving a death-rate of 131·1 per 1000; 17 were illegitimates, of which 7 died, giving the very high death-rate of 411·7 per 1000; had the same mortality existed amongst the legitimates nearly half the children born in the district would have perished.

Atmospheric conditions.

In no class of cases do atmospheric changes affect health so much as that of the young infant reared under unfavourable conditions. During the months of August, September and the first half of October a severe epidemic of diarrhœa prevailed in the district. Fifteen infants died from diarrhœa of all forms; enquiry has always found that when an epidemic of this description passes over a district a certain type of infant perishes, that is the wastrel and ill-developed child, hand-fed on food that it has never properly assimilated, it has no sustaining power, and hence collapses during the first and second days of illness. This is best illustrated by mentioning that of the

15 infants dying of diarrhœa no less than 13 of them were hand fed, making a percentage of 86·6. If only mothers could be got to realize the danger of hand feeding which arises first from the milk supply, then the storage, then the yard dust and flies, and then the inevitable bottle which it is so difficult to keep sterilized. Here it may be mentioned (and commended) that if a bottle is to be used we must have the boat shaped bottle, as it is without tubing and therefore so easily kept clean. As regards the locality, 9 of these occurred in the East Ward, 6 in the West, and 1 in the South. Here it will be seen that soil plays an important part in the infant mortality. As I have pointed out from time to time the immunity of the South Ward from death from infant diarrhœa is remarkable. The villages are situated on gentle slopes, very sandy subsoil and extra good fall. Since 1901 there have been 62 deaths from diarrhœa in the urban district, 34 of these were in the East Ward, 23 in the West, and only 5 in the South.

The next class of cases closely associated with improper feeding are deaths from Marasmus and convulsions. Of the total of 24 deaths from these two causes 15 were hand fed, or 62·5 per cent. It may be asked what relation has wasting and convulsions with bottle feeding; the answer is two-fold.

(a) Wasting is because the food is not assimilated, not suitable to the tender organism.

(b) Convulsions because it is well known that the many artificial foods which are so largely used for babies predispose to rickets, and rickets in turn produce convulsions.

Further, indigestible food of any description taken into the stomach of the infant will act as an irritant and if

not soon ejected will produce convulsions.

Premature birth.

Ten deaths from Premature Birth were registered, of which 8 died under one week, or 80 per cent of the total. The ante-natal conditions largely predisposing to premature births are little understood by parents. The life, habits, and surroundings of the mother during child-bearing period are most vital to the health of the offspring.

In Part III reference will be made to the Notification of Births Act and Health Visitors.

Pneumonia and Bronchitis.

Eighteen deaths were due to Pneumonia and Bronchitis. It is important to point out the relation between the seasons and deaths from Bronchitis and Pneumonia, for this reason; many of the parents have not acquired the knack of dressing their children according to the season of the year. Let it be Easter or further on in summer during excursions and Sunday School outings with a chilly atmosphere or a cold biting east wind, these little toddlers are dressed for the height of summer in cotton frocks and short skirts, with the result that a certain percentage will be next day down with pneumonia; again, take infants in arms, is there anything more irrational than the way they are immediately dressed during convalescence with short skirts and short sleeves leaving the most vulnerable parts of their bodies exposed? This is how it comes to pass that of the 18 deaths from diseases of the respiratory organs 7 died in the first quarter, or 41·1 per cent.; 3 in the second quarter, or 17·6 per cent.; 3 in the third quarter, or 17·6 per cent.; and 4 in the fourth quarter, or 23·5 per cent.

Zymotic Diseases.

Eighty-one cases of infectious diseases were notified during the year, occurring in Wards as follows:—

East Ward	West Ward	South Ward
36	30	20

This is a considerable reduction on last year when 116 cases were notified:—

East Ward	West Ward	South Ward
68	24	24

Measles.

This is the first time for several years that the district as a whole has been free from an epidemic of measles; several scattered cases occurred (chiefly imported), but by early isolation the infection was prevented from assuming epidemic form.

Scarlet-fever.

Forty cases were notified; as to age, 12 were over one year and under 5, 22 over 5 years and under 15, 5 over 15 years and under 25, and one over 25 years and under 65: they were distributed in Wards as follows:—

East Ward	West Ward	South Ward
17	18	5

The District has not been so free from this infection since 1903. With a few exceptions the cases were very mild, and were scattered over the East and West Wards, the South Ward remaining comparatively free: the West Ward in proportion to its population contributed by far the largest number. As to seasonal incidence, 10 were notified in January, gradually falling to one in June, again rising to 8 in July, and falling in December to zero.

Prevention.

The means of prevention practised are the isolation of the patient for 8 weeks in a specially prepared room; during the last week an Izal bath is given daily, and if there is no

ear or throat trouble the patient is then allowed to mix with other members of the family; in the case of school children they are excluded from school for another month. The efficiency of this method may be judged from the fact that the 40 cases notified occurred in 38 families and although with one exception there were other young children in the family, in only two instances did the infection spread to a second member.

Whooping-cough

Eight deaths were registered from Whooping-Cough, 4 were under one year, and 4 over one year and under 5 :—

East Ward	West Ward	South Ward
3	1	4

Early in the year Whooping-Cough assumed epidemic form in the South Ward, and the Infant Schools, Kirkby Woodhouse, were closed from Feb. 24th to March 20th. This measure prevented the spread of the epidemic to the other Wards, but scattered cases occurred in the district up to October.

Influenza

Eight deaths were registered from Influenza, one above 15 years and under 25, three over 25 years and under 65, and four 65 years and upwards :—

East Ward	West Ward	Soutn Ward
3	3	2

During the first quarter of the year Influenza was in epidemic form ; it lasted longer than usual and was of a very severe nature; the incidence fell heavily on the aged and feeble. As is well known influenza epidemics increase the death-rate especially from diseases of the respiratory organs ; during this quarter it will be seen that deaths from pneumonia and bronchitis are more numerous than in any other quarter.

Seventeen deaths were registered from Diarrhoea and Enteritis, 15 under one year, one over one year and under 5, and one over 25 years and under 65. Diarrhœa.

East Ward	West Ward	South Ward
11	5	1

Two cases were notified from the West Ward with one death. Puerperal fever.

In only one year since 1896 has the District been so free from Diptheria as this year; one case only was notified from the South Ward. I hope that this may be taken as evidence that our sanitary improvements are bearing fruit, for in 13 years there has been a total of 84 cases notified, giving an average of 6·4. Diphtheria.

Fifteen cases were notified, but no deaths resulted. Enteric or Typhoid fever.

East Ward	West Ward	South Ward
9	6	—

As to age five were over 5 years and under 15, six over 15 and under 25, four over 25 years and under 65.

Four of the cases occurred in three houses in Byron Street. Each of the houses is supplied with pail closets, but the habits of the inmates and the condition of the back yards were favourable to the spread of the disease, and further one of the families occupied a house in a group, supplied with very insufficient sanitary accommodation, four families using two pail closets. Two new closets have been added and the yard has been asphalted. Locality and causation. East Ward. 9 cases.

One case occurred in Unity Street another in Edward Street, where both houses were above the average for cleanliness; another in Station Street, where the sanitary convenience and surroundings are good, but I suspect that the trade pursued (fried fish) was responsible for the outbreak.

In a case reported from Gladstone Street the house was provided with a w.c., but the ventilation and connections were faulty ; this has now been remedied.

A case was reported from Low Moor Road, from a new and well-equipped house ; it is suggested that the infection arose from the garden, in which the patient had been digging a fortnight before being taken ill, and which was known to have been a site for the discharge of much contaminated rubbish for many years.

West Ward 6 cases.

Three occurred in Church Street, where the houses are provided with pail closets and district water supply ; but the surroundings are by no means free from suspicion, for at one house there is a large deep well said to be never used except for swilling ; at another I found a collection of liquid filth, practically a cesspool, now removed ; in the third case the back-yard is crowded with fowl-pens and runs.

In another case in Queen Street, an examination revealed that the rain water pipe from the roof passed into the sewer untrapped ; and the pipe was so placed that all the joints being loose, sewer gas escaped freely into the kitchen. In years passed this stupid arrangement was a fruitful cause of typhoid, and I thought that all such instances had long been remedied.

Imported cases.

Two cases were reported from Victoria Road, one in a family recently come to reside there, and the other in a boy from Canada, who appears to have been ill before he left that country.

Methods of prevention.

Every case is rigorously isolated in a special room, the personal attendant is not permitted to cook for any other member of the family ; typhoid pails are supplied and the excreta removed every morning to the cinderization furnace by a duly appointed person. In only one instance did the

infection spread to a second member of the family.

Sanitary convenience of typhoid houses.

As in previous years I give in tabular form the typhoid cases according to the sanitary convenience of the houses.

Houses with	w.c.'s	pails	privies	Total
East Ward ...	1	8	0	9
West Ward ...	0	6	0	6
South Ward ...	0	0	0	0

Phthisis.

Ten deaths were registered from pulmonary Phthisis.

East Ward	West Ward	South Ward
4	3	3

As regards sex:— 4 were males and 6 females; the increased liability of women to phthisis is becoming more marked every year, the explanation of which is that their domestic duties keep them too closely confined to the unhealthy atmosphere of ill-ventilated rooms.

As to age and employment:— 2 were children under 2 years of age, so that probably contaminated milk was responsible for these; the ages of the others were, one over 5 years and under 15 years: two over 15 and under 25 years; four over 25 and under 65 years, and one over 65. Four of these were unemployed, one being a boy, who was sent home from a reformatory in a dying condition: of the remaining 6 one aged 16, was in domestic service, one aged 25 a carter, three were house-keepers aged 30, 25 and 32, and one an old woman, aged 85.

Other tubercular diseases.

There were six deaths from other tubercular diseases, one under 1 year, four aged 1 and under 5 years, and one over 5 and under 15 years.

The following comparison with previous years with respect as to totals, averages and rate per 1000 may prove interesting.

Years ...	1896	1897	1898	1899	1900	1901
Deaths	7	7	6	12	12	7

Years ...	1902	1903	1904	1905	1906	1907	1908
Deaths ...	6	8	6	8	9	14	10

Average 8·6.

Rate per 1000 of the population of each year :—

1896	...	·82
1897	...	·78
1898	...	·64
1899	...	1·22
1900	...	1·19
1901	...	·67
1902	...	·52
1903	...	·63
1904	...	·43
1905	...	·55
1906	...	·57
1907	...	·87
1908	...	·60

Average ·84.

It is well known that the chief causes of consumption are :

(1) the milk and meat of tuberculous cattle ;

(2) food of any description becoming contaminated by the presence of a tuberculous patient in the house.

(3) overcrowded rooms and workshops, where the air is vitiated and the lungs easily weakened.

It is now admitted everywhere that persons suffering from phthisis should sleep by themselves, their sputa should be received into a vessel containing some absorbent material that may be easily burnt, pocket spittoons should be used, and the contents either burnt or sterilized by being mixed

with strong carbolic acid ; dishes of every description used by the patients should be exclusively reserved for their use alone. To live in fresh air should be the great aim of the consumptive, windows of living room and bed room being open night and day.

Non-Zymotic Diseases.

Fifteen deaths were registered from this complaint, one between 15 and 25, ten between 25 and 65, and four aged 65 and upwards.

East Ward	West Ward	South Ward
4	8	3

Cancer or malignant disease. 10 females 5 males.

The following table shows the deaths from malignant disease in the district since 1896.

Years...	1896	1897	1898	1899	1900	1901
Deaths	2	4	0	3	4	3

Average 2·7.

Years ...	1902	1903	1904	1905	1906	1907	1908
Deaths...	0	5	6	6	10	4	15

Average 6·5.

It will be noticed that deaths from this disease are distinctly on the increase.

Thirty-six deaths were registered from Bronchitis and Pneumonia, against 30 in 1907.

East Ward	West Ward	South Ward
15	12	9

Diseases of the respiratory organs.

Exactly half of these were infants under 1 year of age, a fact which is fully considered in the paragraph dealing with Infant Mortality. Of the remaining 18 six were above 1 and under 5 years, one above 5 and under 15, six above 25 and under 65, and five above 65 years. The incidence of diseases of the Respiratory Organs has fallen very heavily on the young; we have already seen that 50 per cent were children under one year, and when we add 6 between 1 and 5 years old we find that 72 per cent of all deaths from Bronchitis and Pneumonia occurred in young children. The average child up to 5 years old has

often a better chance of recovery than older people; but the reason why the precentage is so high is that many of them were weaklings, whose powers of resistance were reduced by frequent attacks. It has already been noted that the season of the year, when Bronchitis and Pneumonia are most common, should be carefully guarded against by warm clothing; what applies to the young is equally applicable to the old and feeble.

Heart disease.

Eleven deaths were registered from heart disease, seven aged 25 and under 65, four 65 and upwards.

East Ward	West Ward	South Ward
2	3	6

This is exactly the same number as last year.

Accidents.

There were four deaths from accidents, upon which inquests were held, the verdicts being "Natural Causes," "Burns," "Run over by bicycle," "Heart Disease." There were three other inquests held on people who were killed in the district in the course of their employment, but resided in other parishes. These have been deducted, and the names sent to the proper quarters.

All other causes, "Unclassified."

Thirty-eight deaths at all ages were registered from all other causes; as to age 2 were under one year, 3 above one and under 5 years, and 3 above 5 and under 15 years, 1 above 15 and under 25 years, 11 above 25 and under 65, and 18 aged 65 years and upwards.

Chief causes.

Five were due to Bright's disease, 6 to Cerebral hemmorrhage—"Stroke,"—9 to Senile decay.

Longevity.

Whilst we rightly scrutinize very closely the ages of those who perish early in the struggle for existence, and assign the same their due place in estimating the health of the District, we must not overlook the evidence of longevity

which the vital statistics show. These latter, if numerous, are favourable just as the former if excessive are unfavourable. Twenty-eight people died, whose ages "by reason of more strength," exceeded the Psalmist's limit of "threescore years and ten"; their combined ages amounted to 2140 years.

I give here a table showing the number occuring in each Ward and average age.

East Ward	West Ward	South Ward
7	10	11
Average age :—		
75·4	77·6	76·0

PART III.

Administrative work.

It may well occur to the members of the Local Sanitary Authority that a good deal of the contents of this report has been before them on more than one occasion, but we must not lose sight of the fact that only once a year is a General Report sent to the Local Government Board, who attach the utmost importance to these reports being fully and carefully compiled. The sanitary circumstances of the district must be described, sanitary work recorded and failure to fulfil any previous recommendations must be brought to their notice.

Medical inspection of school children, under the Education (Administrative Provisions) Act 1907.

Your Council is not the administrative Authority for the purposes of this Act, and there is no information available; but this will doubtless be fully supplied by the County Council.

Glanders, Anthrax, and Hydrophobia.

No cases, or even suspicious cases of these diseases came to the knowledge of the M.O.H. during the year. The Council fully realise the value of the provisions of the Infectious Diseases (Notification) Act, 1889, and should occasion arise will promptly take advantage of the Local Government Board's readiness to approve the Act's extension to these diseases.

"Public Health Acts' Amendment Act."

In last year's report pp. 39-40 this Act is summarised, and its principal sections and sub-sections quoted, so that I think it unnecessary to repeat the same this year. The Council, realising the great importance of the adoption of this Act, have applied to the Local Government Board, and the matter is just now receiving their attention, and I hope that they will sanction the adoption of the Act, with as little delay as possible.

Towards the end of last year the new regulations

Dairies, Cowsheds, and Milkshops Order 1885.

received the Local Government Board's sanction (vide 1907 Report, p. 38). All the cowsheds in the district have been visited by both the Sanitary Inspector and M.O.H. more than once during the year, a copy of the regulations left with each farmer, to which their attention was drawn. The milch-cows in the district are upon the whole well fed and clean, and during the summer months are mostly out on grass; in quite two-thirds of the sheds light, ventilation, and drainage are deficient. In two or three cases cleansing and water supply need much more attention. Cleanliness of milk vessels and means of storage are fairly good with a few exceptions; in only one or two instances did we find that the farmers submitted the utensils to the actual sterilisation of boiling, although in a great many instances this could easily have been done, as the boilers were available. There is also an almost entire absence of care in sterilising the hands of the milker and the udders of the cows. Of all foods milk is the most liable to contamination; at every stage from the cowshed to the consumer's table it is liable to be exposed to pollution and infection; hence the regret with which I observe that nothing up-to-date as regards specially constructed milk-vessles is in existence here. A long series of experiments has proved that of the two main sources of contamination, viz., (1) the milker's hands, (2) the cow's udder and abdomen, the latter is far the most dangerous. The Regulations prescribe certain precautions to be taken by milkers, purveyors of milk, and persons selling milk by retail, e.g., the farmer shall not cause or suffer any cow belonging to him or under his care or control to be milked for the purpose of obtaining milk for sale—(a) unless at the time of milking the udder and teats of such cow are thoroughly clean; and (b) unless the hands of the persons milking such cows also are thoroughly clean and free from all infection and contamination.

As the result of these visits two cowsheds have been enlarged, and greatly improved as to space, light, ventilation and drainage; in both cases farm yards have been drained into newly constructed, covered and ventilated cess-pools. Two other farmers gave up the keeping of milch-cows rather than incur the trouble and expense of the re-construction of their premises, which were in the worst possible condition. A number of other cowsheds are under consideration, with a promise from the owners that they shall be improved in accordance with our regulations.

Results.

On pp. 36 and 37, (Report 1907), it was noted that some of the w.c's were unventilated and that additional main sewer ventilators were required. Now all the water closets have been well ventilated and trapped, but not all the main sewer ventilators suggested have been installed, though several important ones have been erected. The water-carriage system is gradually gaining ground here, and no doubt when the "'Public Health Acts' Amendment Act" is adopted, it will become compulsory for all new houses to be provided with w.c.'s.

Water closets and ventilators.

This lane, which is flanked on one side by houses and on the other by a fence, is during a large part of the year nothing but an impassable bog, and though reported on for the last 13 years little has been done to improve it. The Council cannot be blamed for this, as they have not a free hand in the matter; the worst part of it, i.e., the north end, abuts on the County Council's highway.

Lindleys Lane.

As far as filling up is concerned, this nuisance has been recently remedied, but a large amount of waste paper in a filthy condition is still thrown there, with the result that on a windy day these are blown in all directions and settle down in the shelter of the houses, as likely as not

Pond Street nuisance.

carrying infection in their train. The Council should erect a notice forbidding any further deposit of paper on this spot.

Lack of bedroom accommodation

On page 42, Report 1906, attention is drawn to the lack of bedroom accommodation at Portland Row ; this has been to a certain extent remedied by the owners arranging not to let the houses to people with large families. The same remarks apply to the majority of houses in Todd's Row, also to several houses in Nuncar Gate and Old Kirkby.

Quite a number of the houses in Todd's Row are totally without spouting and down-fall pipes, and consequently the water soaks down the walls and renders the bedrooms, etc., damp. A few years ago a substantial footpath of blue brick was laid down in front of these houses, with well-constructed grated gulleys into the sewers for the reception of the house waste and roof water ; the majority of the gulleys have been so neglected that they are broken up and obstructed by all forms of debris. All this should be remedied.

The difficulty of lack of bedroom accommodation is acutely felt in cases of infectious disease ; how can we satisfactorily isolate in a family of 5 or 6 with only two small bedrooms ? The same remarks apply to a large extent to cases of serious illness, even though not infectious ; nursing becomes more difficult, and the chances of recovery from every point of view are lessened.

Necessity for asphalting yards, courts, and alleys.

In many places in the district there are blocks of houses, ranging from three to eight, with the curtilage or yard premises uncultivated. This space is often used by children for play, but the objectional aspect of the question is that domestic animals, such as fowls, pigeons, rabbits, etc also have their abode here ; not unfrequently every form of decaying rubbish, animal and vegetable, is thrown out here.

It is impossible to sweep or flush these places properly, so in dry weather they are covered with dry dust, and in wet weather saturated with mud and kitchen slops. The remedy is to have them asphalted.

During the year under review, a number of these places from each of the Wards has been brought to your notice, and so impressed were you with the importance of the matter, that a committee was appointed for each Ward, but so far nothing has been done, as the Council are waiting for the adoption of the "'Public Health Acts' Amendment Act," which will give them more power to have the work thoroughly done. See L.G.B. letter 3rd July, 1907.

On page 41, Report 1906, it is remarked that with regard to street improvement and paving yards things are very much in *statu quo*; the following streets may be mentioned as urgently calling for attention :— Streets in status quo.

West Ward: Southwell Lane, Park Street (upper half), and Hartley Road.

Bentinck Town: Princes Street and Mayfield Street.

South Ward: Sansom Street, Fox Street, Reform Street, Glebe Street, Sherwood Street (upper half), and James Street.

In the East Ward there is not a single street unconpleted. No public improvements affect the health of the inhabitants so favourably as the paving of streets and yards, except perhaps sewerage and water; and consequently the East Ward general death-rate statistics are more favourable than those of the other Wards.

Additional accommodation has been provided at Chapel Street and Church Street Schools. The overcrowding reported last year in East Kirkby has not been Elementary schools.

School overcrowding.

remedied, so far as I am aware, and the proposed large new school in Oxford Street mentioned in last year's Report has not yet been commenced, and from the report of the last meeting of the Notts. Education Committee, the proposed new school is to be erected at Portland Row in the South Ward, and not at East Kirkby, so that the overcrowding still remains.

Disinfecting of schools.

Once in the year, during school holidays, all the elementary schools in the district were cleansed and disinfected, but it is permissible to point out to the Notts. Education Committee the condition of the playground of the Chapel Street Mixed School. On the girls side it is mostly clay sludge; the spouting to the closets is half detached. On the boys' side the unevenness of the surface allows a large pool of water to collect, in which the children play about, and consequently go daily into school with wet feet, unless particularly well shod.

Damp playgrounds.

To a more or less extent the same remarks apply to the playground at St. Thomas's School, East Kirkby. The provision of a much needed recreation ground still remains in abeyance, hence the necessity of keeping all the places where children play as healthy as possible; see p. 38, Report 1907, where I emphasise the need for the improvement of yards and courts "for not only are they the breeding grounds of infectious germs, but in a district like ours still unprovided with a recreation ground the children and young people have only these dirty yards in which to run about and play." The terror of motor traffic and motor dust has driven them from our green lanes and road sides and how often must we repeat with the poet "to fresh fields and pastures new." To one like the writer who is daily driving past many an open field, it is a keen disappointment to think that the Council have

Want of recreation grounds.

not turned some of them to such good account as to convert them into playgrounds for Kirkby children; the feeling of disappointment is increased in passing through the neighbouring parish of Selston where they have wisely secured three separate fields and fitted them out as playgrounds.

Notification of Births Act 1907.

This Act provides that in areas where the Act is adopted with the consent of the Local Government Board written notice of the birth must be given to the Medical Officer of Health within 36 hours after the birth of the child. The purpose of the Act is the reduction of Infantile Mortality. In the report 1905, page 20, recommendations are made to you largely anticipating the same subject.

Appointment of health visitor.

The appointment of a hospital trained nurse is urged whose duty would consist of visiting and superintending the rearing of infants. It is explained that such a nurse would give her whole time exclusively to improving the home life of young infants, feeding and clothing, and above all, education in the duties of motherhood of the scores of women here; mothers of healthy and lusty born children; of whom, alas, one can predict with every assurance that by the end of the year not a few will have succumbed to improper feeding and exposure. The children's nurse should be in constant touch with the less robust and with babies of careless mothers from their birth.

Reduction of infantile mortality.

Although a gratifying reduction has taken place since 1900 when the infantile mortality stood at 204·4 per 1000 births, there is still much room for improvement. We should never rest content until the death-rate falls considerably below 100 in this district. For this very laudable object no better means could be adopted than the appointment of a well trained health visitor.

Water supply.

The water supply of the district is derived from three wells sunk into magnesian limestone on the Forest, a rising plateau overlooking the district. They are absolutely free from the possibility of pollution. It may here be explained how we come to have three separate supplies. The District Council sank their own well in 1888. Prior to then the Butterley Company, Ltd., sank a well for their works and when the new part of the district known as the "model village" was completed they supplied their own cottages. Portland Row, on the outskirts of the South Ward, is supplied by the Basford Sanitary Authority from their well in the near neighbourhood of ours on the Forest. In the Report 1907, p. 42, your attention was urgently called to the need of supplying Langton Hall and Kirkby Cliffe Farm with the district water; this has now been done.

Sewerage.

The sewage of the district still continues to receive considerable attention. New filter beds with automatic sprinklers have been laid down at Park Lane Sewage Works. May I call your attention to the fact that some of the secondary beds are not working satisfactorily owing to the perforated sprinklers being blocked up. This must be attended to if our effluent is to remain as good as hitherto. The outfall at Portland Row requires more systematic attention, the sprinklers should be oftener changed and some of the beds might with advantage be refilled, as they are getting exhausted.

Pollution of rivers and streams.

The only river in the district is the Erewash, here at its origin a mere rivulet. Complaint has been made during the year of pollution from our sewage works at Park Lane. I made a special inspection of possible causes of this pollution and consider that the chief are—(a) trade waste, (b) the sewage of more than one isolated and distant

dwellinghouse finding its way into the river. The matter was reported to you in the month of November and is having your attention.

The Midland Railway Company's attention has been drawn more than once to the nuisance arising from leaving for several days a number of waggons in the sidings loaded with bones, dirty and smelling, which have not undergone any process of decalcification or cleansing, many covered with large masses of decaying flesh ; it must be remembered that they are indiscriminately gathered from dead carcases and ash heaps. From many points of view this is a source of danger to the community not only in the evil smell and effluvia, but as a nursery for flies, who will multiply here by the million in a day or two and then when the waggons have been removed will very conveniently migrate into the milk cans and sugar bowls of the inhabitants. It hardly needs pointing out to you the part that these pests (the house flies) play as carriers of infection.

Nuisance from railway sidings.

The New Bye-laws allowed by the Local Government Board, December 1st, 1908, are a distinct improvement on the old, especially with respect to the paving of yards and open spaces ; height of rooms intended to be used for human habitation, the drainage of sub-soil of sites for buildings, the closing of buildings or parts of buildings unfit for human habitation, and the prevention of nuisances arising from snow, filth, dust, ashes, and rubbish, and for the prevention of the keeping of animals on any premises so as to be injurious to health.

Bye-laws.

Most valuable are the clauses dealing with Swine keeping, and the depositing for any purpose of agriculture of filth within one hundred yards from any street, premises, school or place of public worship or assembly. The same as regards owners or consignees

leaving waggons loaded with filth emitting stench in railway sidings at a distance of not more than one hundred yards from streets, premises, schools, or places of public worship.

If many nuisances hitherto intractable are not now abated it is not from the want of comprehensive bye-laws.

Scavenging.

The Scavenging is done by the Council's own men and horses. The refuse destructor mentioned in the last year's Report has not yet been provided.

Factory and Workshops Act 1901, Sec. 132.

From a list in the Appendix you will see that there are in your district four factories, seven workshops, six workplaces, and 38 outworkers (home-works).

The complaint made in last year's Report, i.e., Hardy & Martin keeping the manure heap too long standing, has been attended to by more frequent removals. So also the requirements of Bakehouses (Sec. 5. 97-100) on Mr. Wilson's premises. Victoria Road, has been remedied.

Bakehouses.

The bakehouse in Reform Street Annesley Woodhouse deficient in special sanitary requirements, remains in statu quo.

In connection with homeworks 76 visits of inspection were made. In five houses work was stopped and goods fumugated and disinfected. Three of these were due to the presence of Whooping-Cough and two to Scarlatina.

Homeworkers premises.

The small number of homeworks interfered with, is explained by the fact already observed, namely, the District being free from epidemics or any serious infectious out-break during the year.

In the Appendix will be found a summary of the work done in the Inspector of Nuisances Department. To this

excellent official I am indebted for much cordial assistance in the Public Health work of this district, and to you, Gentlemen, for your courteous consideration, I also beg to tender my thanks. Work done in the Inspector of Nusiances Department.

I have the honour to remain,

Your obedient servant,

JOHN MACKENZIE, M.O.H.

Appendix.

Summary of work done in the Inspector of Nuisances Department during the year 1908 :—

	Inspections made	Informal Notices served by Inspector	Legal Notices by authority of Council	Nuisances abated after Notice	In statu quo
DWELLINGHOUSES :—					
Insanitary	22	22	...	22	...
Overcrowding ...	5	5	...	5	...
Ashpits and Privies ...	32	32	...	32	...
Defective Pail Closets ...	40	40	...	40	...
Defective W.C.'s ...	7	...	...	...	...
HOUSE DRAINAGE :—					
Defective Traps and connections ...	41	41	41	41	...
Water Supply ...	3	3	...	3	...
Offensive Trades and other nuisances ...	8	8	...	8	...

The following cases were submitted to the Council monthly as follows :—

Jan.	Feb.	Mar.	April	May	June
30	14	11	7	11	14
July	Aug.	Sept.	Oct.	Nov.	Dec.
15	13	11	6	14	12

Houses Disinfected after Infectious Disease (Including Phthisis.) ... 84

Schools Disinfected after re-opening ... 7

TABLE I.

For whole District. **Corrected according to Census 1901.**

Year	Population estimated to middle of each year	Births		Deaths under 1 year of age		Deaths at all ages		Deaths in Public Institutions	Deaths of non-residents registered in district	Deaths of residents registered beyond district	Deaths at all ages. Net	
		Number	Rate	Number	Rate	Number	Rate				Number	Rate
1898	9277	354	38·1	54	152·5	140	15·0	...	...	1	139	15·8
1899	9655	412	42·6	58	140·7	159	16·4	...	...	1	158	16·7
1900	10034	401	39·9	82	204·4	190	18·9	...	...	2	190	18·9
1901	10412	429	41·2	72	167·8	166	15·9	...	...	...	166	15·9
1902	11495	466	40·5	81	173·8	176	15·3	...	...	4	180	15·6
1903	12660	495	39·0	55	111·1	154	12·1	...	...	1	155	12·1
1904	13755	521	37·8	86	165·0	175	12·6	...	...	2	177	12·8
1905	14465	495	34·2	63	127·2	154	10·6	...	...	8	162	11·1
1906	15673	513	32·7	71	138·4	178	11·3	...	...	10	188	11·9
1907	16052	535	33·1	60	112·1	163	10·1	...	...	7	170	10·5
Averages for years 1898—1907	12347·8	462.1	37·9	68·2	149·3	165·5	13·8	...	...	3·6	168·5	14·1
1908	16442	543	33·0	76	139·9	194	11·8	3	3	8	199	12·1

Area in acres ... 5814

Population 10318
Inhabited houses 2055 - At Census 1901
Average persons per house 5

TABLE II.

Corrected according to Census 1901.

Year	Kirkby-in-Ashfield Urban District				East Ward				West Ward				South Ward			
	Population estimated to middle of each year	Births registered	Deaths at all ages	Deaths under 1 year	Population to middle of year	Births registered	Deaths at all ages	Deaths under 1 year	Population to middle of year	Births registered	Deaths at all ages	Deaths under 1 year	Population to middle of year	Births registered	Deaths at all ages	Deaths under 1 year
1898	9277	354	140	54		157	56	29		91	35	8		106	49	17
1899	9655	412	159	58		180	58	23		108	56	21		124	45	14
1900	10034	401	190	82		181	88	44		107	66	23		113	36	15
1901	10412	429	166	72	3912	169	61	25	3193	125	55	25	3307	135	50	22
1902	11495	466	176	81	4530	204	65	28	3430	129	61	28	3535	133	50	25
1903	12660	495	154	55	5325	212	57	24	3705	146	52	12	3630	137	45	19
1904	13755	521	175	86	5965	238	70	39	4020	122	47	22	3770	161	60	25
1905	14465	495	154	63	6335	211	64	24	4260	161	50	21	3870	123	48	18
1906	15673	513	178	71	6828	237	65	26	4685	158	68	28	4160	118	55	17
1907	16052	535	170	60	7093	236	85	30	4763	165	42	17	4196	134	43	13
Averages of years 1898 to 1907 ...	12347·8	462·1	166·2	68·2	3998·8	202·5	66·9	29·2	2805·6	131·2	53·2	20·5	2646·8	128·4	48·1	18·5
1908	16442	543	199	76	7318	226	76	30	4864	179	72	27	4261	138	51	19

TABLE III.

Cases of Infectious Disease notified during the year 1908.

Notifiable Diseases	Cases notified in whole District							Total cases notified in each locality		
	At all ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwrds	East Ward	West Ward	South Ward
Diphtheria ...	1	...	...	...	1	...	...	...	...	1
Erysipelas ...	23	1	1	...	1	20	...	5	4	14
Scarlet Fever ...	40	...	12	22	5	1	...	17	18	5
Enteric Fever ...	15	...	...	5	6	4	...	9	6	...
Puerperal Fever	2	...	...	...	1	1	...	...	2	...
Cerebro Spinal Fever ...	...	...	...	...	...	...	...	...	...	...
Totals	81	1	13	27	14	26	0	31	30	20

TABLE IV.

Causes of, and ages at, death during year 1908.

Causes of Death	Deaths in or belonging to whole District at subjoined ages							Deaths in or belonging to localities at all ages		
	All ages	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	East Ward	West Ward	South Ward
Scarlet Fever	1	...	1	...	...	...	...	1	...	...
Whooping Cough	8	4	4	...	...	...	..	3	1	4
Epidemic Influenza	8	...	...	...	1	3	4	3	3	2
Diarrhœa	15	14	1	...	....	...	...	10	4	1
Enteritis	2	1	....	...	...	1	...	1	1	....
Puerperal Fever	1	....	...	...	...	1	...	....	1	...
Phthisis	10	...	2	2	1	4	1	4	3	3
Other tuberculous diseases ...	6	1	4	1	...	...	...	3	3	....
Cancer	15	....	...	...	1	10	4	4	8	3
Bronchitis	7	1	...	...	...	1	5	...	4	3
Pneumonia	29	17	6	1	...	5	...	15	8	6
Alcoholism	1	....	....	...	...	1	...	...	1	....
Venereal diseases	1	1	...	...	...	...	...	...	1	...
Premature Birth	10	10	....	...	...	...	...	3	5	2
Diseases and accidents of parturition	2	...	...	...	1	1	...	2	...	...
Heart diseases	11	...	...	...	...	7	4	2	3	6
Accidents	4	...	...	3	...	...	1	2	1	1
Marasmus	11	10	1	...	..	...	...	1	7	3
Congenital	1	1	...	...	...	...	...	...	...	1
Convulsions...	14	14	...	...	...	...	...	9	4	1
Meningitis	4	...	1	2	1	...	...	3	...	1
All other causes	38	2	3	3	1	11	18	10	14	14
All causes	199	76	23	12	6	45	37	76	72	51

Infant Mortality during the year 1908.

Cause of Death	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 1 month	1-2 months	2-3 months	3-4 months	4-5 months	5-6 months	6-7 months	7-8 months	8-9 months	9-10 months	10-11 months	11-12 months	Total Deaths under 1 year
All causes certified ...	11	5	6	3	25	7	7	8	7	4	6	3	3	6			76
All causes uncertified ...																	
Whooping Cough ...	...	...	...	...	...	1	...	...	1	...	...	...	2	...	...	...	4
Diarrhœa	...	...	...	...	...	1	1	2	5	...	1	1	...	2	...	...	13
Enteritis	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Gastritis	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Premature Birth ...	8	1	1	...	10	...	...	...	...	...	...	...	...	...	...	...	10
Congenital Defects ...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Marasmus	...	...	2	1	3	1	3	1	...	...	2	...	...	...	...	...	10
Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Syphilis	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Convulsions	3	2	3	...	8	2	1	1	...	2	...	...	...	...	...	...	14
Bronchitis	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Pneumonia	...	...	...	2	2	1	2	2	1	...	1	2	1	3	...	...	17
Other Causes	...	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	2
Totals	11	5	6	3	25	7	7	8	7	4	6	3	3	6			76

Population estimated to middle of 1908 .. 16442

Births in the year { legitimate ... 526; illegitimate ... 17

Deaths in the year { legitimate infants ... 69; illegitimate infants ... 7

Deaths from all causes at all ages ... 199

Vital Statistics from 1896 (a) for whole District (b) for each Ward.

For Whole District						For Wards					
Years	Houses	Populat'n	Birth-rate	Death-rate at all ages	Infant Death-rate		Houses	Populat'n	Birth-rate	Death-rate at all ages	Infant Death-rate
1896	1704	8520	39·5	18·5	186·9	East Ward	684	3420	45·2	19·3	184·6
						West ,,	420	2100	35·1	18·2	170·5
						South ,,	600	3000	43·1	18·1	176·9
1897	1809	8898	44·7	14·4	140·7	East Ward	709	3545	50·2	16·3	118·0
						West ,,	460	2300	34·3	10·4	88·6
						South ,,	640	3200	44 0	14·4	198·5
1898	1915	9277	38·1	15 0	152·5	East Ward	708	3540	44·3	15·8	184·7
						West ,,	524	2620	34·7	13·3	87·9
						South ,,	683	3415	31·0	14·3	160·3
1899	2033	9655	42·6	16·4	140·7	East Ward	718	3590	50·1	16·1	127·7
						West ,,	612	3060	35·2	18 3	194·4
						South ,,	703	3515	35·2	12·6	112·9
1900	2108	10034	39·9	18·9	204·4	East Ward	741	3705	48·8	23·7	243·0
						West ,,	645	3225	33·1	20·4	214·9
						South ,,	722	3610	31·3	9·9	132·7
1901	2177	10412	41·2	15·9	167·8	East Ward	756	3872	43·6	15·3	147·9
						West ,,	625	3173	39·3	17·3	200·0
						South ,,	674	3273	41·2	15·2	162·9
1902	2299	11495	40·5	15·3	173·8	East Ward	906	4548	45·5	14·3	137·2
						West ,,	686	3444	37·4	17·7	237·0
						South ,,	707	3549	34·8	14·1	187·9
1903	2532	12660	39·1	12·1	111·1	East Ward	1065	5325	39·8	10·0	113·2
						West ,,	741	3705	39·4	14·0	83·1
						South ,,	726	3630	37 8	12·3	138·6
1904	2751	13755	37·8	12·6	165:0	East Ward	1193	5965	39·9	11·5	163·8
						West ,,	804	4020	30·3	11·6	180·3
						South ,,	754	3770	42·7	15·6	155·2
1905	2893	14465	34·2	11·1	127·2	East Ward	1267	6335	33·3	9·7	113·7
						West ,,	852	4260	37·7	10·5	130·4
						South ,,	774	3870	31·8	12·1	146·3
1906	3014	15673	32·7	11·3	138·4	East Ward	1313	6828	34·7	9·2	109·7
						West ,,	901	4685	33·7	13·4	177·2
						South ,,	800	4160	28·3	12 5	144·0
1907	3087	16052	33·3	10·1	112·1	East Ward	1364	7093	33·2	11·4	126·9
						West ,,	916	4763	34·6	9·6	103·0
						South ,,	807	4196	31·9	9·7	91·0
1908	3165	16442	33·0	11·8	139·9	East Ward	1409	7318	30·8	10·3	132·7
						West ,,	930	4864	36·8	14·8	150·8
						South ,,	820	4261	32·3	11·9	137·7

Vital Statistics of England and Wales, 1908, for comparison:—

	Birth-rate	Death-rate	Zymotic Death-rate	Infant Mortality
England and Wales ...	26·5	14·7	1·29	121·0
76 Great Towns ...	27·0	15·8	1·59	128·0
142 Smaller Towns ...	26·0	14·7	1·26	124·0
England and Wales less the 218 Towns ...	26·2	13·8	0·99	110·0

Summary of Visits to and Reports of Workshops, Factories, and Workplaces.

Name and Situation of Workshop	Name and Address of Owner.	No. of Workers	No. of Home-Workers	No. of Rooms	Cubic space	Sanitary conven'enc's		Date of inspection	Summary of Reports
					cubic ft.	M	F		
FACTORIES—									
Hosiery Factory, Nuncargate	Geo. Cook, Esq., Nuncargate, Kirkby, Notts.	12	8	2	11036	1	0	Mar. 23rd Nov. 3rd	Only males employed
Station Street, East Kirkby	Walker and Sons, East Kirkby, Notts.	71	10	2	63000	3	3	do.	Space and ventilation ample
Kirkby Manufacturing Co., Prospect Street, East Kirkby	Kirkby Manufacturing Co.	29	20	4	31360	1	1	do.	Separate closets for the sexes now provided
Ærated Water Works, the Park, Kirkby	Hardy and Martin, The Park, Kirkby, Notts.	3	...	2	16809	1		do.	Manure heap now regularly removed
WORKSHOPS—BAKEHOUSES									
Cemetery Road, East Kirkby	E. T. Beaumont, Diamond Avenue, East Kirkby, Notts.	3	...	2	1232	1		Mar. 23rd Nov. 3rd	Ventilation and space ample
Morley Street, East Kirkby	Ed. Wilbourn, Station St, East Kirkby, Notts.	2	...	1	2816	1 pail		do.	,, ,,
The Hill, Kirkby	J. Bond, The Hill, Kirkby.	1	...	1	1032	,,		do.	,, ,,
Victoria Road, Kirkby	F. Wilson, Victoria, Road, Kirkby	3	...	1	1440	,,		do.	Closet now removed, Yard drained
Prospect Street, East Kirkby	W. Rossington, Prospect Street; East Kirkby	1	...	1	1232	,,		do.	Ventilation and space ample
The Hill Kirkby	Co-operative Society, Kirkby, Notts.	3	...	3	1675	,,		do.	,, ,,
Reform Street, Annesley Woodhouse	Henry Eakin, Reform St., Annesley Woodhouse	1	...	2	1430	,,		do.	Deficient in ventilation and general cleanliness
WORKPLACES—									
Tailoring, Station Street, East Kirkby	Fred King, Station Street, East Kirkby	2	...	1	1040	,,		Mar. 10th Nov. 2nd	Ventilation and space ample
Dressmaking, Gladstone Street, East Kirkby	Mrs. Scothern, East Kirkby, Notts.	3	...	1	1680	1 privy		do.	,, ,,
Dressmaking, Diamond Avenue, East Kirkby	Miss Chadburn, East Kirkby, Notts.	2	...	1	1321	,,		do.	,, ,,
Dressmaking, Victoria Road, Kirkby.	Miss Sharley, Kirkby, Notts.	3	...	1	1496	,,		do.	,, ,,
Dressmaking, Fisher Street, Nuncargate	J. Beet, Fisher Street, Kirkby, Notts.	3	...	1	768	,,		do.	,, ,,
Dressmaking, Cemetery Road, East Kirkby	Miss Hoyland, East Kirkby, Notts.	2	...	1	1014	,,		do.	,, ,,
Printing, Cemetery Road, East Kirkby	A. Moore, Cemetery Road, East Kirkby	3	...	1	4604	,,		do.	,, ,,